Towards preparedness for PrEP: PrEP awareness and acceptability among MSM at high risk of HIV transmission who use sociosexual media in four Celtic nations: Scotland, Wales, Northern Ireland and The Republic of Ireland: an online survey

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TOWARDS PREPAREDNESS FOR PREP. PREP AWARENESS AND ACCEPTABILITY AMONGST MSM AT HIGH RISK OF HIV TRANSMISSION WHO USE SOCIOSEXUAL MEDIA IN FOUR CELTIC NATIONS - SCOTLAND, WALES, NORTHERN IRELAND AND THE REPUBLIC OF IRELAND: AN ONLINE SURVEY

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PrEP Acceptability among high risk MSM in four Celtic Nations

MeSH Key words – Pre-Exposure Prophylaxis; Homosexuality, Male; Sexual Behaviour; HIV; High-Risk Sex; Cross-Sectional Studies

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ABSTRACT

Objective To assess the awareness and acceptability of pre-exposure prophylaxis (PrEP) among men who have sex with men (MSM) and use sociosexual media at high risk of HIV infection in four Celtic nations.

Design Cross-sectional study

Methods Online self-complete survey of 386 HIV-negative/status unknown MSM who reported condomless anal intercourse (CAI) with ≥2 men in the last year, recruited from gay sociosexual media.

Results One third (34.5% 132/386) of participants were aware of PrEP but over half (58.5%, 226/356) reported they would be willing to use PrEP if it were available to them. Only men who regularly tested for HIV every 6 months (AOR 2.89, 95% CI 1.54-5.42) were more likely to be aware of PrEP. PrEP acceptability was only associated with reporting ≥5 CAI partners (OR 2.04, 95% CI 1.2-3.46) in the last year.

Conclusions Low levels of PrEP awareness were reported across these Celtic nations. Only one third of high risk MSM had heard of PrEP but over one half would be willing to take a daily pill to prevent HIV infection. Sociodemographic factors, commercial gay scene proximity, and social network use were unrelated to considering PrEP use. However those reporting most CAI partners were more likely to consider PrEP use.

Towards preparedness for PrEP. PrEP awareness and acceptability amongst MSM at high risk of HIV transmission in four Celtic nations - Scotland, Wales, Northern Ireland and the Republic of Ireland: An online survey

INTRODUCTION

Pre-Exposure Prophylaxis (PrEP) is the use of anti-retroviral medication by HIV negative individuals before HIV exposure to prevent infection. The recent UK PROUD[1] and French Ipergay[2] studies found that PrEP (tenofovir/emtricitabine) reduced HIV infection by 86% amongst men who have sex with men (MSM) at high risk of HIV infection, in a real-world setting. The unprecedented clinical efficacy of PrEP within these studies[3] coupled with widespread media interest[4] in this biomedical intervention has reinvigorated debates around PrEP availability in the UK and elsewhere.

MSM remain at disproportionate risk for HIV infection within the UK[5] and Republic of Ireland (RoI).[6] Current evidence suggests that PrEP may reduce HIV transmission amongst MSM by up to 86%.[1, 2] Since the initial clinical trials documenting PrEP success,[7] a growing international literature has charted the association of PrEP awareness and acceptability amongst MSM,[8, 9] building an albeit limited population level understanding of PrEP. Unsurprisingly, there is emerging consensus that PrEP is most likely to be used by those who engage in high risk behaviour[8-12] rather than any other indicative sociodemographic markers.[8, 9] Complementary cost efficacy analysis also suggests that PrEP should be promoted to high risk MSM.[13] Thus, there is a clear need to understand preparedness for PrEP amongst the most likely beneficiaries: MSM at high risk of HIV transmission.

The SMMASH (Social Media, MSM and Sexual Health) cross-sectional survey collected information about social media use, sexual health and behaviours amongst men recruited online in four Celtic nations; Scotland, Wales, Northern Ireland (NI) and RoI. Using data from 2013, we explored the characteristics of high risk MSM, to determine;

1) Which factors are associated with PrEP awareness amongst high risk MSM?
2) Which factors are associated with PrEP acceptability amongst high risk MSM?

METHODS

The SMMASH Survey (see supplementary data for a copy) collected anonymous, online self-complete questionnaires with MSM in Scotland, Wales, NI and RoI. Participants were recruited from the most popular UK/Irish gay-specific social media websites (Gaydar, Recon and Squirt), smartphone apps (Grindr and Gaydar) and Facebook between November 2012 and February 2013 using banner advertising and direct message 'blasts'. Full details of the survey were provided to participants on the landing webpage, highlighting they were under no obligation to take part and participation taken as evidence of informed consent. No financial participation incentive was given. Participants were asked not to complete the questionnaire if they had already done so but duplicates were not screened for. In total 2280 men completed useable questionnaires, but given the nature of online recruitment advertising and men's multiple profiles/use of multiple sites it is not possible to calculate a response rate. Questionnaires surveyed sociodemographics, sexual health and sexual behaviours in the previous 12 months.

The following description of PrEP was provided*: "A drug (called Truvada) has been licensed in America to reduce the risk of sexually acquiring HIV for people who are HIV negative. This is known as Pre-Exposure Prophylaxis (PrEP prophylaxis just means 'prevention'). In order for the drug to work properly, it needs to be taken once a day and never missed. It can reduce the chance of HIV infection for men who have sex with men by 73%*[1] *if taken every day. It doesn't have any serious side effects but it can cause nausea in the first month for about 10% of people who take it. The drug is not yet available in the UK*." PrEP awareness was assessed by asking whether participants had previously heard of PrEP (Response: Yes, No/Unsure). PrEP acceptability was assessed by asking '*If this PrEP pill were available today, how likely would you be to use it?*' (Response: 7 point Likert Scale from Extremely Likely

[1] This figure was accurate at the time of data collection and was taken from Grant R.M, Lama JR, Anderson PL, et al. Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men. N Engl J Med 2010;363:2587–2599.

to Extremely Unlikely, collapsed into a dichotomous variable; likely vs unsure/unlikely). In addition, a definition of post-exposure prophylaxis (PEP) was also included, to avoid confusion between the two.

Data Analysis

Data were analysed with IBM SPSS 22. Overall, 129 (5.7%) participants were HIV positive and 2151 (94.3%) were HIV-negative or status unknown. Men who were HIV-positive were excluded from this analysis because personal PrEP use is only applicable to men who are HIV-negative. Analysis focused on the 462 HIV-negative/status unknown participants (21.5%) who reported CAI with ≥2 men in the last year and as such were defined as 'high risk men'. We adopted the term CAI herein, rather than the more usual 'unprotected anal intercourse' since condomless anal intercourse with PrEP use constitutes protected sex in terms of HIV transmission. Men with missing data on any of the variables in the final regression models were excluded from each analysis, leaving a total of n=356 men for PrEP awareness and n=386 for PrEP acceptability (see Figure 1). Chi-square tests were used for bivariate comparisons. Variables significant at the bivariate level ($p<0.05$) were entered into two multivariate logistic regression models (using the default Forced Entry Method) used to estimate odds ratios (OR) and 95% confidence intervals (CI) for PrEP awareness and acceptability.

Figure 1 Flow of participants through the study

RESULTS

Respondent Characteristics

HIV-negative/status unknown high risk men (n=386) were drawn from Scotland (44%, n=170), Wales (22%, n=85), the RoI (19.9%, n=73) and NI (14%, n=54), largely reflecting the relative population sizes of those countries (with Scotland over- (+7%) and RoI underrepresented (-9.5%)). Over half were recruited from Gaydar (56.5%, n=215), with Grindr (19.9%, n=77), Facebook (13.5%, n= 52), Squirt (9.6%, n=37) provided most remaining participants; only 5 (0.5%) were recruited from Recon. Most (83.4%, n=322) said they were HIV-negative whilst 16.6% (n=64) said they were unsure. Mean age was 37 years (sd=12.9, range 18 – 82), most (98.2%, n=379) were white and over two-thirds (n=244) had degree level education. Two thirds (n=256) were single, 27.3% (n=105) reported a regular male partner/civil partnership and 6% (n=23) a regular female partner. Most participants used gay social media at least daily (63.5%, n=245) and infrequently went out on the commercial gay scene, leading us to collapse the latter into a dichotomous measure of either Never (35.4%, n=136) or Ever (64.6%, n=248). A majority were open about their sexual orientation to nearly everyone (64.2%, n=248), and just under half (46%, n=168) said that their nearest commercial gay scene was not within easy reach. In terms of sexual health self monitoring, over half reported a recent HIV (59.0%, n=162) or STI (54.5%, n=210) test, one third (28.4%, n=106) regularly test for HIV at least every 6 months and half (52.1%, n=201) regularly test for other STIs at least annually. Most reported more than 10 male sex partners (64.5%, n=249), half reported more than 10 male anal partners (44.8%, n=173) and almost one third reported 5 or more male CAI partners (28.5%, n=110). These data, as well as a breakdown of these variables by country are provided in a supplementary online appendix.

PrEP awareness and acceptability amongst high risk HIV-negative/status unknown MSM

Only one third (34.5%, n=132) of participants had heard of PrEP prior to completing the survey. However, over half (58.5%, n=226) said they were likely to use daily

PrEP if it were available today, with 20.2% (n=78) unsure and 21.2% (n=82) unlikely to use PrEP.

Factors associated with PrEP Awareness amongst high risk HIV-negative/status unknown MSM

Table 1 shows the Chi^2 and regression analyses for factors associated with PrEP awareness. Participants were more likely to be aware of PrEP if they lived in NI (compared to Wales or RoI), reported frequent (daily or more often) gay social media use, lived near the commercial gay scene, reported an HIV test or an STI test in the last year, reported regular HIV testing at least every 6 months or regular STI testing at least every year. In the multivariate regression model, only regular (at least every 6 months) HIV testing remained independently associated with PrEP awareness (adjusted OR 2.89, 95% CI 1.54-5.42).

Table 1 Associations between demographics, sexual behaviours and service use and PrEP awareness among n=356 high risk HIV negative/status unknown MSM

Characteristic	% (n/N) heard of PrEP Chi2 sig value	OR (95% CI)	AOR (95% CI)
Age			
18-25	32.1 (26/81)^{NS}	1 (p=0.713)	
26-35	38.6 (34/88)	1.33 (0.71-2.51)	
36-45	37.2 (29/28)	1.25 (0.65-2.41)	
45+	32.1 (35/109)	1 (0.54-1.85)	
Employment status			
Employed / self-employed	37.1 (93/251)^{NS}	1 (p=0.112)	
Unemployed	18.9 (7/37)	0.40 (0.17-0.94)	
Retired / DLA / carer	22.2 (4/18)	0.49 (0.16-1.52)	
Student	38.8 (19/49)	1.08 (0.57-2.02)	
Country			
Northern Ireland	52.1(25/48)*	1 (p=0.022)	1 (p=0.056)
Scotland	36.6 (56/153)	0.53 (0.28-1.02)	0.52 (0.26-1.06)
Wales	28.0 (23/82)	0.36 (0.17-0.75)	0.39 (0.17-0.87)
Republic of Ireland	27.4 (20/73)	0.35 (0.16-0.75)	0.35 (0.15-0.79)
Educational qualification			
Secondary / none	25.6 (10/39)^{NS}	1 (p=0.399)	
Further / vocational	32.9 (25/76)	1.42 (0.6-3.37)	
Degree / postgraduate	36.5 (84/230)	1.67 (0.78-3.59)	
Relationship status			
Single	35.0 (82/234)^{NS}	1 (p=0.345)	
Regular male partner	37.4 (37/99)	1.11 (0.68-1.18)	
Regular female partner	20.0 (4/20)	0.46 (0.15-1.43)	

Frequency of gay social media use Less than daily Daily of more often	 27.4 (34/126)* 39.1 (90/230)	 1 (p=0.022) 1.74 (1.08-2.80)	 1(p=0.077) 1.59 (0.95-2.66)
Frequency of gay scene use Never use gay scene Ever use gay scene	 30.2 (35/116)^{NS} 37.0 (88/238)	 1 (p=0.208) 1.36 (0.84-2.19)	
How out Not very out Out to nearly everyone	 29.5 (36/122)^{NS} 37.6 (88/234)	 1 (p=0.129) 1.44 (0.9-2.31)	
Perceived proximity to commercial gay scene Far from gay scene Near gay scene	 29.1 (48/165)* 39.8 (76/191)	 1 (p=0.035) 1.61 (1.03-2.51)	 1 (p=0.138) 1.45 (0.89-2.36)
Self-reported HIV status Negative Unknown	 36.7 (108/294)^{NS} 25.8 (16/62)	 1 (p=0.103) 0.6 (0.32-1.11)	
Recent HIV Test Never or > 1 year ago ≤ 1 year ago	 21.2 (31/146)** 44.3 (93/210)	 1 (p<0.001) 2.95 (1.82-4.77)	 1 (p=0.539) 1.27 (0.59-2.77)
Recent STI test Never or > 1 year ago ≤ 1 year ago	 23.5 (38/86)** 44.3 (86/194)	 1 (p<0.001) 2.60 (1.64-4.12)	 1 (p=0.84) 1.09 (0.48-2.47)
Regular HIV test Never or less frequently than every 6 months At least every 6 months	 24.4 (61/250)** 59.4 (63/106)	 1(p<0.001) 4.54 (2.80-7.36)	 1 (p=0.001) 2.89 (1.54-5.42)
Regular STI testing Never or less frequently than yearly Yearly or more often	 23.3 (42/180)** 46.6 (82/176)	 1(p<0.001) 2.87 (1.82-2.52)	 1 (p=0.497) 1.26 (0.62-2.65)
Number of sex partners <10 partners 10+ partners	 33.1(41/124)^{NS} 35.8 (83/232)	 1 (p=0.609) 1.13 (0.71-1.79)	
Number of anal sex partners <10 anal partners 10+ anal partners	 32.1 (62/193)^{NS} 38.0 (62/163)	 1 (p=0.244) 1.3 (0.84-2.01)	
Number of CAI partners 2-4 CAI partners ≥5 CAI partners	 32.8 (83/253)^{NS} 39.8 (41/103)	 1 (p=0.210) 1.35 (0.84-2.18)	

^{NS}not significant, *p<0.05, **p<0.001

Factors associated with PrEP acceptability amongst high risk HIV-negative/status unknown MSM

Table 2 shows the Chi^2 and regression analyses for factors associated with PrEP acceptability. Reporting ≥10 anal and ≥5 CAI partners in the last year significantly

increased participants' odds of reporting they were likely to use PrEP if it were available today. Having previously heard of PrEP was not associated with PrEP acceptability. In the multivariate model only reporting ≥5 CAI partners remained independently associated with PrEP acceptability (OR=2.04, 95% CI 1.2-3.46).

Table 2 Associations between HIV status, sexual behaviours and service use and PrEP acceptability among n=386 high risk HIV negative/status unknown MSM

Characteristic	% (n/N) Likely to use PrEP Chi2 sig value	OR (95% CI)	AOR (95% CI)
Age			
Age 18-25	59.3 (54/91)[NS]	1 (p=0.649)	
Age 26-35	62.9 (61/97)	1.16 (0.65-2.09)	
Age 36-45	53.6 (45/84)	0.79 (0.43-1.44)	
Age 45+	57.9 (66/114)	0.94 (0.54-1.65)	
Employment status			
Employed / self-employed	58.6 (160/273)[NS]	1 (p=0.992)	
Unemployed	59.0 (23/39)	1.02 (0.51-2.01)	
Retired / DLA / carer	60.0 (12/20)	1.06 (0.42-2.66)	
Student	56.6 (30/53)	0.21 (0.51-1.67)	
Country			
Northern Ireland	59.3 (32/54)[NS]	1 (p=0.595)	
Scotland	55.9 (95/170)	0.87 (0.47-1.62)	
Wales	64.7 (55/85)	1.26 (0.63-2.54)	
Republic of Ireland	57.1 (44/77)	0.92 (0.45-1.86)	
Educational qualification			
Secondary / none	60.0 (27/45)[NS]	1(p=0.983)	
Further / vocational	58.3 (49/84)	0.93 (0.45-1.96)	
Degree / postgrad uate	59.0 (144/244)	0.96 (0.5-1.84)	
Relationship status			
Single	61.7 (158/256)[NS]	1 (p=0.194)	
Regular male partner	51.4 (54/105)	0.66 (0.42-1.04)	
Regular female partner	56.5 (13/23)	0.81 (0.34-1.91)	
Frequency of gay social media use			
Less than daily	53.2 (75/141) [NS]	1 (p=0.106)	
Daily or more often	61.6 (151/245)	1.41 (0.93-2.15)	
Frequency of gay scene use			
Never use gay scene	58.1 (79/136) [NS]	1 (p=0.882)	
Ever use gay scene	58.9 (146/248)	1.03 (0.68-1.58)	
How out			
Not very out	52.9 (73/138) [NS]	1 (p=0.093)	
Out to nearly everyone	61.7 (153/248)	1.43 (0.94-2.19)	
Perceived proximity to commercial gay scene			
Far from gay scene	61.9 (104/168) [NS]	1 (p=0.172)	
Near gay scene	54.8 (108/197)	0.75 (0.49-1.14)	

Self-reported HIV status Negative Unknown	 56.5 (182/322) [NS] 68.8 (44/64)	 1 (p=0.072) 1.69 (0.96-3)	
Recent HIV test Never or > 1 year ago Recent ≤ 1 year ago	 62.3 (101/162) [NS] 55.8 (125/224)	 1 (p=0.198) 0.76 (0.51-1.15)	
Recent STI test Never or > 1 year ago Recent ≤ 1 year ago	 60.2 (106/176) [NS] 57.1 (120/210)	 1 (p=0.54) 0.88 (0.59-1.32)	
Regular HIV test Never or less frequently than every 6 months Every 6 months or more often	 58.4 (156/267) [NS] 60.4 (64/106)	 1 (p=0.73) 1.08 (0.69-1.72)	
Regular STI testing Never or less frequently than yearly Yearly or more often	 59.7 (120/201) [NS] 57.3 (106/185)	 1 (p=0.632) 0.91 (0.6-1.36)	
Number of sex partners <10 partners 10+ partners	 52.6 (72/137) [NS] 61.8 (154/249)	 1 (p=0.077) 1.46 (0.96-2.23)	
Number of anal sex partners <10 anal partners 10+ anal partners	 53.5 (114/213)* 64.7 (112/173)	 1 (p=0.026) 1.59 (1.06-2.41)	1 (p=0.431) 1.2 (0.76-1.91)
Number of CAI partners 2-4 CAI partners ≥5 CAI partners	 53.3 (147/276)* 71.8 (79/110)	 1 (p=0.001) 2.24 (1.39-3.61)	1 (p=0.008) 2.04 (1.2-3.46)
Heard of PrEP Yes No/Unsure	 60.6 (80/132)[NS] 57.4 (144/251)	 1 (p=0.541) 0.88 (0.57-1.34)	

[NS]not significant, *p<0.05.

DISCUSSION

Principal Findings

Only one third of high risk HIV-negative/status unknown men recruited online in the four Celtic nations of Scotland, Wales, NI and RoI had previously heard of PrEP. Awareness was patterned by country, social media use, commercial gay scene proximity and involvement in HIV/STI testing behaviours, suggesting an inequity of information provision and sexual health service, patterned by key routes of MSM sexual health promotion. However, over half of men said they would be willing to use PrEP. PrEP acceptability was associated with higher numbers of anal and CAI sex partners even amongst this high risk group, but not by PrEP awareness or sociodemographic factors. These findings suggest that HIV negative/status unknown

MSM at high risk of HIV may be willing to use PrEP to reduce their risk of HIV infection. Therefore, a key imperative for HIV prevention is to ensure high risk men are appropriately targeted for PrEP use. It is important to note that the definition of high risk sex (CAI with ≥2 partners in the last year) used herein, does *not* constitute higher risk of HIV infection in the context of correct PrEP use, which itself provides around 86% reduction in HIV transmission, although little protection against other STIs.[3] As such, our findings suggest that those men who already engage in high levels of condomless sex are the most willing to adopt a biomedical HIV risk reduction strategy alternative to condoms. These findings suggest that if these men were to access PrEP there is considerable potential for the reduction of onwards transmission of HIV.

Comparison with other studies

Levels of PrEP awareness amongst high risk MSM in the four Celtic nations were somewhat higher than the 11-23% reported amongst the wider population of MSM[8, 9] though similar to more recently published work in western countries[12, 14-16] reiterating the expected increase over time already documented.[15] Although substantial variation within countries has been observed (e.g. Thailand 66%,[17] 7%;[10] China 11%,[18] 22%[19]) the almost 2-fold difference between RoI and NI suggests investigation of local health promotion initiatives into new HIV prevention technologies is warranted. Across the literature, multiple variables are associated with PrEP awareness amongst western MSM, including increased age,[12, 20] higher education[16, 20] and recent HIV/STI testing[12, 16] although no consistent patterns have emerged. Certainly, this relationship between HIV/STI testing resonated with our results, suggesting a higher level of sexual health self monitoring, or sexual health literacy, amongst the PrEP aware. However, no previous studies have examined the relationship between PrEP awareness and either social media use or commercial gay scene proximity. Thus our study is the first to suggest a link between PrEP awareness and proximity to key health promotion mediums, including sexual health services, commercial gay scene and social media. These key findings should be addressed within future intervention development.

Candidacy for PrEP remains a key question. Amongst high risk MSM, PrEP acceptability was related to neither sociodemographics nor PrEP awareness. This

reinforces the finding that, for this subgroup at least, only additional high risk sex increases the likelihood of PrEP acceptability. Previous PrEP investigations of high risk MSM have included substance use in their high risk definition,[21, 22] or unorthodox definitions of high risk[23] so their results do not directly transfer to MSM with high sexual behaviour risk. Moreover, since the PROUD study[3] included only men who reported and anticipated some CAI (within 90 days prior to and following recruitment), our study results are more relevant to this population than other PrEP awareness papers.

Strengths and weaknesses

This paper examines PrEP awareness and acceptability amongst high risk MSM; those who are most likely to benefit from, or indeed be offered, PrEP. A clear definition of PrEP was provided to participants, as has been recommended,[8] detailing efficacy, potential side effects and the importance of high adherence. Although our definition did not clarify that this efficacy level required high adherence[24], subsequent evidence now suggests that PrEP is more efficacious with less stringent adherence[3, 25] than was specified herein, which may increase MSM's willingness to use this biotechnology as an HIV prevention tool. The on-going scientific debates about efficacy and adherence complicate how PrEP is explained to potential users. A limitation of this study - and most other PrEP studies - is the uncertainty of what is clinically accurate relating to PrEP regimens. Our findings, therefore, will be affected by wider issues in the field relating to data on how most recent clinical findings are translated into guidelines and practice.

Additionally, a contrasting definition of PEP was also provided (see supplementary data), to avoid potential confusion between the two, to further improve questionnaire validity. Economic aspects of PrEP were not addressed within this study. Internationally the cost of PrEP is prohibitive to population level uptake and provision. There is a danger that these economic factors may amplify health inequalities; affluent men may purchase PrEP and reduce their risks of infection whilst these risks will remain for those who cannot afford or access PrEP because of reduced material and/or psychosocial resources. Within national contexts that offer health care and prevention it may be cost effective to offer PrEP to those at highest risk with greatest vulnerability to HIV infection.

Although high risk is defined herein as condomless anal intercourse with ≥2 partners, data were not gathered to exclude those practising treatment-as-prevention (TasP) from this definition. However, evidence suggests that, at the time of data collection, there was 'very limited knowledge of TasP as a prevention strategy' (p.2),[26] TasP awareness was limited to people in close proximity to HIV, largely MSM diagnosed with HIV [ibid], and no public health campaigns to date have focused on TasP within these nations. Since then current BHIVA guidelines suggested TasP as a prevention strategy on a case-by-case basis, in concert, this failure to assess TasP should not dramatically impact study validity.

Recruiting participants online, albeit via the principal social and sociosexual media used by gay men, entails that a convenience sample is generated since a response rate cannot be generated, questioning representativeness and limiting generalizability to only those MSM who use sociosexual media. Herein, the overall sample size is relatively modest, in particular when broken down by individual countries. However, these data are drawn from the largest PrEP acceptability study outwith North America to date and encompass 4 countries, including large cities, semi-urban and rural populations. These populations are usually overlooked by traditional recruitment methods. Yet whilst the approach adopted here is more inclusive with regards to geographic reach, it may also exclude those men who may lack the material and/or psychosocial resources to utilise the sociosexual media. Critically, these men may well be the most vulnerable to sexual ill health. Finally, online sampling prevented HIV status verification via linked oral testing herein, as used in several commercial gay scene studies.[27, 28] However, the rate of undiagnosed positive men was only 1.3–1.8% in those studies,[27, 28].

Implications

In announcing the highest PrEP protection rate of any trials to date, the PROUD[1] and Ipergay[2] study results necessitate an urgent consideration of NHS PrEP treatment policy. Our data (collected prior to the PROUD/Ipergay announcement) suggest widespread interest in PrEP use by high risk MSM – the same group involved in these studies - but also that many men who may benefit from PrEP are currently unaware of it. Therefore, there is a need for diverse means of raising PrEP awareness should it

ever be available within the UK/Ireland, including both mass media and social marketing approaches.[29] However, the observed differences in PrEP awareness by region, engagement with health services, social media use and proximity to the commercial gay scene demand a targeted and tailored approach to raise PrEP awareness amongst this group of men. Principles such as targeted audience segmentation within social marketing[30] may be critical in reaching those men who cannot be characterised as having high levels of sexual health service literacy. In recruiting participants online, most of whom infrequently used the commercial gay scene, this study emphasises the importance of online health promotion, particularly via social media, to reach men who standard sexual health promotion and services delivered via commercial and community gay venues may exclude. Finally, even within this sample of high risk men, it is those who are at the highest risk that are most willing to use PrEP. As such, focused risk assessment tools, delivered online, may be beneficial to further explore PrEP candidacy amongst HIV-negative MSM at the highest risk of HIV infection.

Key Messages

- Only one third of high risk MSM had heard of PrEP but over half found PrEP for HIV acceptable.
- Sexual health self monitoring was related to increased awareness of PrEP.
- Men reporting the most CAI and anal partners were more likely to consider PrEP, but sociodemographics, commercial gay scene proximity and social networking were unrelated.
- Targeted health promotion, capitalising on social marketing and audience segmentation, should include an online component, delivered via social media.

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